

REMARKS

In the Office Action of October 25, 2007, claims 1-5, 7 and 8 were objected to because “[c]laims 1-6 must set forth a plurality of elements or steps, each element or
5 step of the claim should be separated by a line indentation, 37 CFR1.75(i).” In addition, claims 1-4, 6-9 and 11 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Vankka (“A GSM/EDGE/WCDMA Modulator With On-Chip D/A Converter for Base Stations”) in view of Fischer (U.S. 2003/0160654 A1). Furthermore, claims 5 and 10 were rejected under 35 U.S.C. 103(a) as allegedly being
10 unpatentable over Vankka in view of Fischer, and further in view of Khoini-Poorfard (USPN 6,865,235) or Madkour (US 2002/0085623 A1), respectively.

With respect to the claim objections, Applicants respectfully assert that 37 CFR 1.75(i) is not a requirement but a suggestion, as indicated by the use of the term
15 “should”. Thus, Applicants respectfully decline to amend the claims to include line indentations. As such, Applicants respectfully request that the claim objections be withdrawn.

With respect to the claim rejections, Applicants respectfully assert that each
20 limitation of the independent claims 1, 7 and 10 is not disclosed in the cited references of Vankka, Fischer and Madkour, as explained below. Thus, the independent claims 1, 7 and 10 are not obvious in view of these cited references. In view of the following remarks, Applicants respectfully request that the pending claims 1-11 be allowed.

25 I. Patentability of Independent Claims 1, 7 and 10

The independent claim 1 recites “*means for introducing a dip in an envelope of the digital I/Q signal in a guard interval between adjacent time-slots of the plurality of time-slots,*” which is not disclosed in the cited references of Vankka and
30 Fischer. Thus, the independent claim 1 is not obvious in view of these cited references.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As indicated on page 3 of the Office Action, the cited reference of Vankka does not teach “*means for introducing a dip in an envelope of the digital I/Q signal in a guard interval between adjacent time-slots of the plurality of time-slots,*” as recited in the independent claim 1. However, the Office Action states that the cited reference of Fischer teaches “means for introducing a dip in an envelope (**fig. 2: paragraphs 13 and 27 and 29**) in a guard interval between adjacent time-slots (**fig. 2: paragraphs 13 and 27-29**).” The Office Action then asserts that “it would [be] obvious to one of ordinary skill in the art at the time the invention was made to combine the I/Q modulation circuit of Vankka with the I/Q transmitting apparatus of Fischer in order to create an enhanced transmission system which reduces the mean power loss in a system using different modulation methods, such as GMSK and 8PSK (**Fischer: paragraphs 6 and 8**).”

The cited reference of Fischer discloses a transmitting apparatus that forces a small quiescent current to flow into a power transistor 80 via a resistor 100 using a control voltage from a D/A converter 90, as described in paragraph [0029] and shown in Fig. 1. The transmitting apparatus also mixes analog I and Q signals at an IQ mixer 40 to produce an output IQ mixed signal, which is applied to the power transistor 80 through a coupling capacitor 70, as also shown in Fig. 1. Since analog I and Q signals are mixed, the output IQ mixed signal of the IQ mixer 40 is also an analog signal. Thus, the cited reference of Fischer discloses introducing the control voltage via the resistor 100 to the analog IQ mixed signal at the power transistor 80. The independent claim 1 recites “*means for introducing a dip in an envelope of the digital I/Q signal in a guard interval between adjacent time-slots of the plurality of time-slots*” (emphasis added). Since the cited reference of Fischer discloses introducing the control voltage to the analog IQ mixed signal, the cited reference of Fischer does

not disclose the claimed “*means for introducing a dip in an envelope of the digital I/Q signal in a guard interval between adjacent time-slots of the plurality of time-slots.*”

Thus, the cited references of Vankka and Fischer even if combined do not teach all the limitations of the independent claim 1. As such, the independent claim 1 is not obvious in view of the cited references of Vankka and Fischer.

The above remarks are also applicable to the independent claims 7 and 10, which recite limitations similar to those of the independent claim 1. Thus, Applicants respectfully assert that the independent claims 7 and 10 are not obvious in view of the cited references of Vankka, Fischer and Madkour, and request that these independent claims be allowed as well.

II. Patentability of Dependent Claims 2-6, 8, 9 and 11

Each of the dependent claims 2-6, 8, 9 and 11 depends on one of the independent claims 1, 7 and 10. As such, these dependent claims include all the limitations of their respective base claims. Therefore, Applicants submit that these dependent claims are allowable for at least the same reasons as their respective base claims.

As an example, the dependent claim 2 recites that “*the means for introducing the dip*” comprises “*a digital multiplier for multiplying the I signal and the Q signal of the I/Q signal with a dip-shaped waveform.*” The components in the cited reference of Fischer that are responsible for introducing the control voltage to the analog IQ mixed signal via the resistor 100 include the controller 20, the D/A converter 90 and the resistor 100. Thus, the cited reference of Fischer does not disclose to the limitation of “*the means for introducing the dip*” comprises “*a digital multiplier for multiplying the I signal and the Q signal of the I/Q signal with a dip-shaped waveform,*” as recited in the dependent claim 2. As such, the dependent claim 2 is not obvious in view of the cited references of Vankka and Fischer.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,

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